



**F E D E R A L
S T U D E N T A I D**
We Help Put America Through School

July 25, 2003

FSA Enterprise Architecture

PRM, BRM, SRM, TRM Boilerplates



Agenda



- Introductions
- Objective, methodology and consolidated status
- PRM boilerplates and selection process
- BRM boilerplates and selection process
- SRM boilerplates and selection process
- TRM boilerplates and selection process
- Distribution of material
- Next steps
- Question & answer session

Denise Hill

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Cyndi Reynolds

Tim Fain / Yair Rajwan

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All

Objective



- Assist FSA to use the FSA-PRM, FSA-BRM, FSA-SRM and FSA-TRM to populate the Enterprise Architecture sections in FSA's FY2005 OMB Exhibit 300s for enterprise applications and programs / initiatives.
 - Common Origination & Disbursement (COD)
 - Central Processing System (includes FAFSA on the Web) (CPS)
 - Common Services for Borrowers (CSB)
 - Direct Loan Servicing System (DLSS)
 - Debt Management & Collection System (DMCS)
 - Financial Management System (FMS)
 - National Student Load Database System (NSLDS)
 - Student Aid Internet Gateway (SAIG)
 - Trading Partner Management System (TPMS)
 - Data Strategy (DS)
 - Enterprise Architecture Infrastructure / Integrated Technical Architecture (EAI / ITA)
 - Virtual Data Center (VDC)



Methodology – Discovery Sessions

Application	Name	Organization	Application	Name	Organization
CPS (includes FAFSA)	Kenneth Faison Gregory James Nina Colon Dennis Scott Mike Cline Pat Struve Sandy Weldon Connie Donald Bill Schulte	FSA FSA FSA Pearson Pearson Pearson Pearson Pearson Pearson	DMCS	Courtland Smith Bryan Van Note	FSA Pearson
COD	Steve Wingard Bryan Van Note Sharon Barfield Scott Gray	FSA Pearson Pearson IBM	NSLDS	Matteo Fontana Michael Fillinich Merlina Rigo Bryan Van Note	FSA FSA FSA Pearson
CSB	Cynthia Battle Denise Hill	FSA FSA	FMS	Shirley Pratt Bryan Van Note	FSA Pearson
SAIG	Lydia Morales Paul Steinhauer Deb Sheets	FSA Pearson Pearson	TPMS	Paul Hill Jr Kitty Wooley	FSA FSA
DS	Keith Wilson Shyam Pai	FSA FSA	Boilerplates	Denise Hill	FSA
EAI / ITA	Ganesh Reddy Lois Moore Alex Lefur Bruce Kingsley Scott Gray	FSA FSA Accenture Accenture IBM	PRM	Cyndi Reynolds Tony Oliveto	FSA FSA
DLSS	Allen Progdgers Cathy Power	FSA FSA	VDC	Yolanda Brooks	FSA

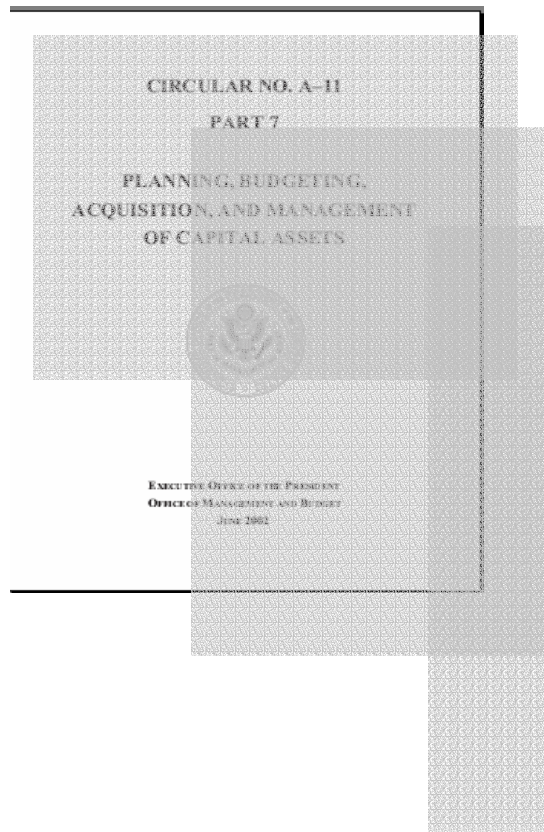
Consolidated Status

FSA Application	Business Profile	Performance Reference Model (PRM)	Business Reference Model (BRM)	Service Reference Model (SRM)	Technical Reference Model (TRM)
Common Origination & Disbursement (COD)	✓	✓	✓	✓	✓
Central Processing System (CPS)	✓	✓	✓	✓	✓
Common Services for Borrowers (CSB)	✓	Cynthia	Cynthia	✓	Cynthia
Direct Loan Servicing System (DLSS)	✓	✓	✓	✓	✓
Debt Management & Collection System (DMCS)	✓	✓	✓	✓	✓
Data Strategy (DS)	✓	✓	✓	✓	✓
Enterprise Architecture Infrastructure & Integrated Technical Architecture (EAI / ITA)	✓	✓	✓	✓	✓
Financial Management System (FMS)	✓	✓	✓	✓	✓
National Student Loan Database System (NSLDS)	✓	✓	✓	✓	✓
Student Aid Internet Gateway (SAIG)	✓	✓	✓	✓	✓
Trading Partner Management System (TPMS)	Kitty	Kitty	Kitty	✓	✓
Virtual Data Center (VDC)	✓	✓	✓	✓	✓

Performance Reference Model (PRM) – Draft June 2003



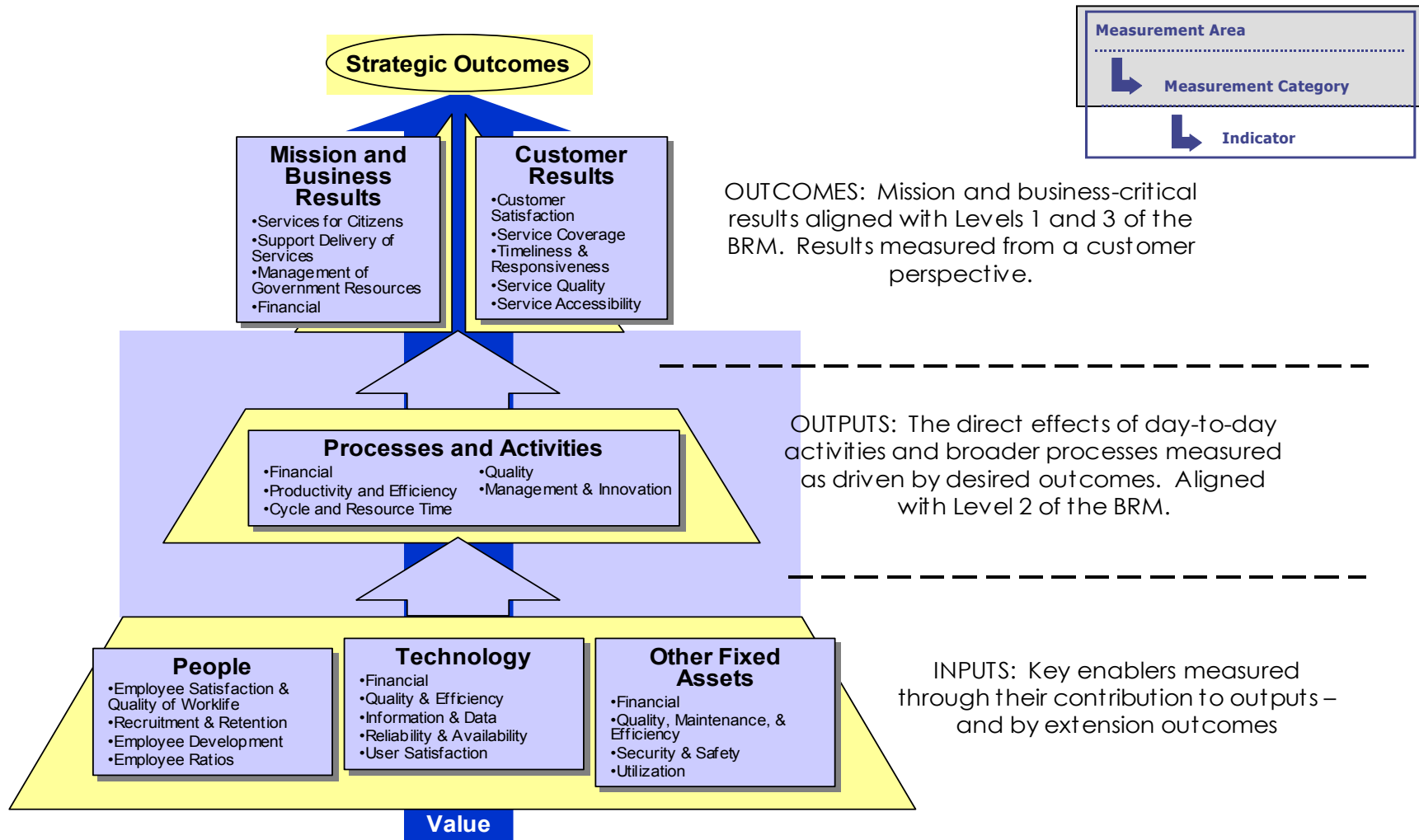
The FY 2005 A-11 will require agencies to consider the PRM for each Exhibit 300 they submit



Key PRM Requirement:

1. Align performance information for development, modernization, and enhancement IT investments with the PRM in Section I.C “Performance Goals and Measures” (Table 2)

The Performance Reference Model Version 1.0 Will Be Used by Agencies in FY 2005 Budget Formulation



Agencies Will Provide Performance Information in Section I.C – Table 1 of the Exhibit 300

Table 1						
Fiscal Year	Strategic Goal(s) Supported	Existing Baseline	Planned Performance Improvement Goal	Actual Performance Improvement Results	Planned Performance Metric	Actual Performance Metric Results
2003						
2003						
2004						
2004						

* Note: Agencies must use Table 1 for reporting performance goals and measures for existing investments that were initiated prior to FY2005.



Agencies Will Provide Performance Information in Section I.C - Table 2 of the Exhibit 300

- For FY 2005, the Performance Goals and Measures Section will have two tables
- Table 2, shown below, is to be used for all development, modernization, and enhancement projects for FY 2005
- Identify and define 4 measurement indicators: one for each of the Measurement Areas (Mission and Business Results, Customer Results, Process and Activities, and Technology) of the PRM.

Fiscal Year	Measurement Area	Measurement Category	Baseline	Planned Improvements to the Baseline	Actual Results
2005	Mission and Business Results				
2005	Customer Results				
2005	Process and Activities				
2005	Technology				
2006					
2006					
2006					

- Agencies should use the PRM only for new development, modernization, and enhancement major IT investments beginning in FY 2005 (OMB Circular A-11 and the FEA)
- Because OMB Circular A-11 states the PRM is for new development, modernization, and enhancement major IT investments, those that include “steady state” funding are not required to use the PRM and complete Table 2*

*Note: If an IT investment is only “steady state”, still recommend completing PRM’s with existing performance data, since they will probably be required for FY06. In addition, FSA will capture the PRM’s in the Enterprise Architecture Repository

Performance Reference Model - Definitions for What is Expected in Each Column of Section I.C Table 2

- a) Fiscal Year – Agencies are to indicate in which fiscal year the initiative plans to use a particular Measurement Indicator.
- b) Measurement Area – Agencies should use the PRM to determine the areas in which they will be measuring performance. For FY 2005, these must include Mission and Business Results, Customer Results, Processes and Activities, and Technology.
- c) Measurement Category – Agencies should use the PRM to determine the category in which they will be measuring performance. These must correspond to the appropriate Measurement Area provided in the preceding column.
- d) Measurement Indicator – Agencies should use the PRM to determine the Operationalized Measurement Indicator for which they will be measuring performance. These must correspond to the appropriate Measurement Category provided in the preceding column. Each of these Measurement Indicators should be tailored or “operationalized” to the agencies’ specific environment.
- e) Baseline – Agencies should provide the relevant baseline information for the “Operationalized” Measurement Indicator provided in the preceding column. Baselines generally stay the same across fiscal years unless OMB approves a change to the baseline. See section III of this release document for more information on conducting baseline analysis.
- f) Planned Improvements to the Baseline – Agencies should provide the relevant performance target for the “Operationalized” Measurement Indicator for the appropriate fiscal year. These may, but will not always, change over time. See section III of this release document for more information on setting performance targets.
- g) Actual Results – Agencies should provide the most current information they have to demonstrate progress consistent with the “Operationalized” Measurement Indicator. See section III of this release document for more information on collecting and reporting actual performance information.

FSA PRM Superset [Provided by FSA/Performance Team]

Step 1:



Measurement Area	Measurement Category	Measurement Indicator	Baseline	Planned Improvements to the Baseline	Actual Results
From Appendix A of the PRM •Pick a generic Measurement Category from the Mission and Business Results Measurement Area •Pick one of the associated generic Measurement Indicators •Name your Operationalized Measure SOURCE: THIS FIRST CATEGORY SHOULD LINK TO GPRA MEASURES FOR OBJECTIVE 6.4					
Mission and Business Results	Financial Management? <i>(It is not Education as described in the PRM Model. Use the designated categories from ATT A to pick a measurement category. The categories listed are appropriate to use; only one is required.)</i>	Payments Reporting Information Maintaining Clean Audit Status	Clean Audit	Maintain Clean Audit Status	FY 2002 Clean Audit
Mission and Business Results	Controls and Oversight	Program Monitoring: •Removal from GAO's High Risk List	FSA designated by GAO as High Risk	Removal from GAO's High Risk designation	FSA continues to be designated by GAO as High Risk (FY03). Next opportunity for removal FY 04.

FSA PRM Superset [Provided by FSA/Performance Team]



Step 2:

Measurement Area	Measurement Category	Measurement Indicator	Baseline	Planned Improvements to the Baseline	Actual Results
From Appendix B of the PRM Identify a Measurement Category for Customer Results This is basically thinking from the perspective of the customer—how the agency is serving him/her and the traditional attributes of service (accuracy, timeliness, helpfulness, etc.) SOURCE: THESE ARE JUST SUGGESTIONS FROM GENERIC LIST + ONE THAT YOU'VE USED BEFORE. LOOKS LIKE DEFINING JUST ONE OR TWO WOULD WORK [FY04 OMB Exhibit 300, Business Case, Annual Performance Plan, Dashboard, etc.]					
Customer Results	Customer Benefit	Customer Satisfaction: •% Satisfied with COD	Unavailable until September 2003		
Customer Results	Customer Benefit	Customer Complaints: •Ave Compliant Rate --# COD Complaints/Total Customers			
Customer Results	Customer Benefit	Service Coverage: •% of Pnotes initiated via e-MPN process	43% initiated through MPN process		
Customer Results	Timeliness and Responsiveness	Response Time: •Average initial response time •Average time to resolve customer inquiry			
Customer Results	Timeliness and Responsiveness	Delivery Time: •#/% of products (releases) delivered on time			
Customer Results	Service Quality	Accuracy of Service or Product: •# of problem related contacts w/applications (bugs, etc) /total customer contact			
Customer Results	Service Quality	Accuracy of Service or Product: •#/% inquiries solved successfully by first contact			

FSA PRM Superset [Provided by FSA/Performance Team]

Step 3:



Measurement Area	Measurement Category	Measurement Indicator	Baseline	Planned Improvements to the Baseline	Actual Results
From Appendix B of the PRM Identify a Measurement Category for Process and Activities that result from the outputs of the IT investment (cycle time, financial reconciliation measures, etc.) SOURCE: THESE ARE JUST SUGGESTIONS FROM GENERIC LIST + ONE THAT YOU'VE USED BEFORE. LOOKS LIKE DEFINING JUST ONE OR TWO WOULD WORK [FY04 OMB Exhibit 300, Business Case, Annual Performance Plan, Dashboard, etc.]					
Process and Activities	Financial	Funds Substantiated: •% Funds Substantiated within 30 days	98%	99%	
Process and Activities	Financial	Costs: •Unit Costs	Unavailable until Sept 2003.		
Process and Activities	Financial	Savings and Cost Avoidance: •Dollars would have been spent but weren't (Compare projected RFMS&DLOS to COD)			
Process and Activities	Cycle Time & Timeliness	Cycle Time: •% originations received processed and acknowledged within 24 hours	99.5%		
Process and Activities	Cycle Time & Timeliness	Cycle Time: •% Funds available within 36 hours of request			

FSA PRM Superset [Provided by FSA/Performance Team]

Step 4:



Measurement Area	Measurement Category	Measurement Indicator	Baseline	Planned Improvements to the Baseline	Actual Results
From Appendix B of the PRM <ul style="list-style-type: none"> Identify a Measurement Category for Technology, focused on key elements of performance that directly result from the IT initiative These are related to the application itself and include things like, response time, load levels, data standardization, etc. NOTE: SOURCE: THESE ARE JUST SUGGESTIONS FROM GENERIC LIST + ONE THAT YOU HAVE USED BEFORE. LOOKS LIKE DEFINING JUST ONE OR TWO WOULD WORK [FY04 OMB Exhibit 300, Business Case, Annual Performance Plan, Dashboard, etc.]					
Technology	Financial	Overall Costs: •Total IT Costs/ Total Operating Costs <i>(Maybe really hard to separate in contract)</i>			
Technology	Financial	User Costs: •Application Costs per user of the Application			
Technology	Effectiveness	IT Contribution to Process, Customer, or Mission: •Reduction in paper submissions			
Technology	Efficiency	Response Time: •Website Response time is 95% within 15 seconds			
Technology	Efficiency	Load Levels: •# of simultaneous end-users an application or system can provide service to.			
Technology	Information & Data	Data Reliability & Quality: •Error detection rate 3.5% overall. Less than 1% when filed electronically.			
Technology	Information and Data Sharing	Data Standardization or Tagging: •# of relevant data elements for which standards and definitions exist divided by the number of data elements			
Technology	Reliability & Availability	Availability: •The time systems or applications are available to end-users divided by the total time in the relevant time period.			

PRM - Common Origination & Disbursement (COD) – [Provided By FSA/Performance Team]



Fiscal Year	Measurement Area	Measurement Category	Measurement Indicator	Baseline	Planned Improvements to the Baseline	Actual Results
FY05	Mission and Business Results					
FY05	Customer Results	Customer Benefit	Service Coverage: •% of Pnotes initiated via e-MPN process	43% initiated through MPN process		
FY05	Process and Activities	Financial	Funds Substantiated: •% Funds Substantiated within 30 days	98%	99%	
FY05	Process and Activities	Cycle Time & Timeliness	Cycle Time: •% originations received processed and acknowledged within 24 hours	99.5%		
FY05	Process and Activities	Cycle Time & Timeliness	Cycle Time: •% Funds available within 36 hours of request			
FY05	Technology	Efficiency	Response Time: Website Response time is 95% within 15 seconds			

PRM - Common Origination & Disbursement (COD) – [Provided By FSA/Performance Team]



Fiscal Year	Measurement Area	Measurement Category	Measurement Indicator	Baseline	Planned Improvements to the Baseline	Actual Results
FY06	Mission and Business Results					
FY06	Customer Results	Customer Benefit	Service Coverage: % of Pnotes initiated via e-MPN process			
FY06	Process and Activities	Financial	Funds Substantiated: % Funds Substantiated within 30 days			
FY06	Process and Activities	Cycle Time & Timeliness	Cycle Time: % originations received processed and acknowledged within 24 hours			
FY06	Process and Activities	Cycle Time & Timeliness	Cycle Time : % Funds available within 36 hours of request			
FY06	Technology	Efficiency	Response Time: Website Response time is 95% within 15 seconds			

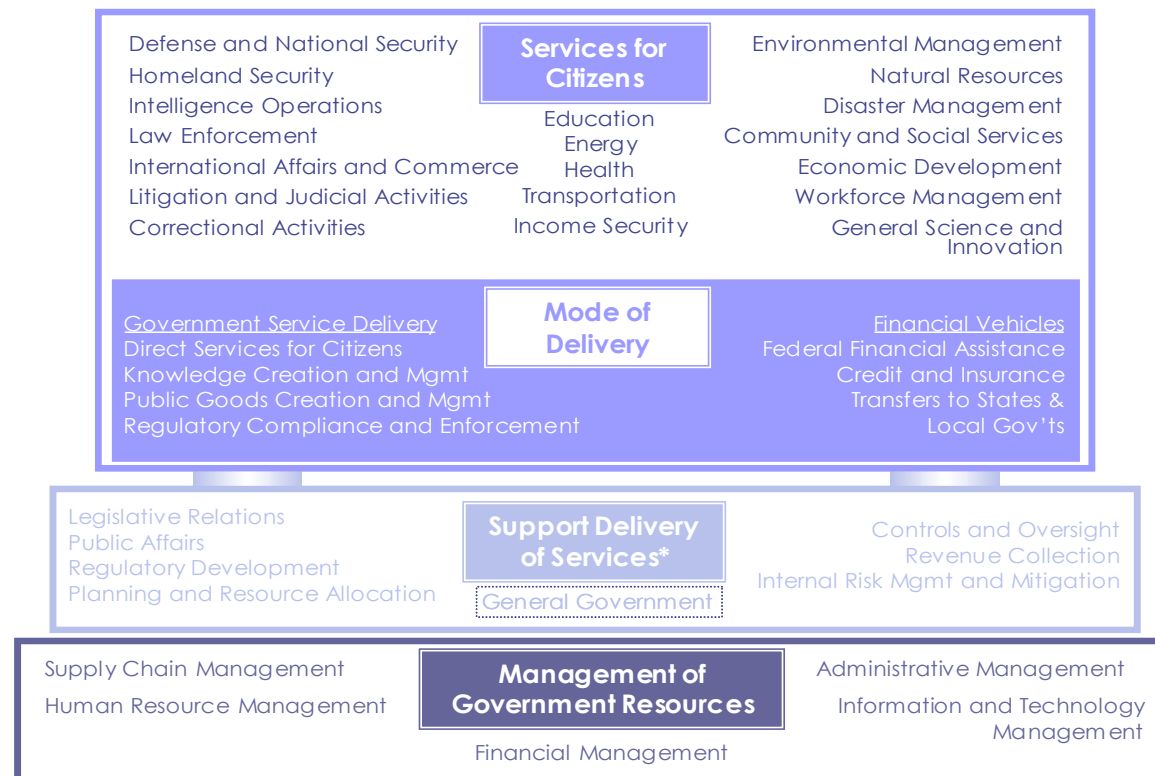
Business Reference Model (BRM) - Version 2.0



The Business Reference Model Version 2.0, used by agencies in FY 2005 budget formulation.

- The BRM is a function-driven framework to describe the Lines of Business and Internal Functions performed by the federal government independent of the agencies that perform them

Business Reference Model Version 2.0



Summary of BRM Actions

Agencies should take the following four actions to meet the BRM-related requirements in A-11:

1. Identify the primary Business Area the IT investment supports;
2. Identify the primary Line Of Business (LOB) / Internal Function and Sub-function the IT investment supports;
3. Populate the last six digits of the Unique Project ID based on the primary BRM alignment; and
4. List non-primary (secondary) BRM alignments for the IT investment in Section II.A.1.E.

By answering three questions:

- 1.What processes or programs does the IT investment support or automate?
- 2.What is the purpose of these processes or programs?
- 3.What support does the IT investment provide to these processes or programs?



Business Reference Model (BRM) – CPIC Links

Requirement	<ul style="list-style-type: none"> Section 53.8 of A-11 requires agencies to create a Unique Project ID for each IT investment. The last 6 digits of this ID should reflect the IT investment's primary alignment to the BRM.
	<ul style="list-style-type: none"> Section 53.8 of A-11 indicates agencies should contact OMB if they cannot identify a primary BRM alignment. If an alignment cannot be identified, agencies should use the numbering schema as discussed in Appendices A and B to this guidance document.
	<ul style="list-style-type: none"> Section II.A.1.E of the Exhibit 300 requires agencies to identify both the primary and non-primary alignments to the BRM for major IT investments.
Key Concepts	<ul style="list-style-type: none"> Though an IT investment can have any number of alignments to the BRM, the Line of Business and Sub-function it most directly supports should be the primary alignment.
	<ul style="list-style-type: none"> A major IT investment that primarily aligns to the Service for Citizen Business Area must also identify a non-primary alignment to the Mode of Delivery Business Area.
	<ul style="list-style-type: none"> Agencies should align to the BRM in the most accurate and reasonable manner.
	<ul style="list-style-type: none"> The Business Reference Model is linked to the Budget Function Codes. This can serve as a useful starting point to align IT investments to the BRM. A BRM and Budget Function Code "crosswalk" document will be posted at www.feapmo.gov.
	<ul style="list-style-type: none"> Business or program-representatives to the project can be valuable resources to identify how the IT investment aligns with the BRM.

Unique Project Identifier Source: BRM

- Education should supply the unique number for the Line Of Business (LOB)/Internal Function and Sub-Function of the BRM associated with each initiative

XXX-XX-XX-XX-XX-XXXX-XX-XXX-XXX : 23-digit Unique Project ID#

<u>BUSINESS AREA</u>	
1XX-XXX	: SFC
2XX-XXX	: MoD
3XX-XXX	: SDS
4XX-XXX	: MGR

XXX-XXX

**LOB or INTERNAL
FUNCTION***

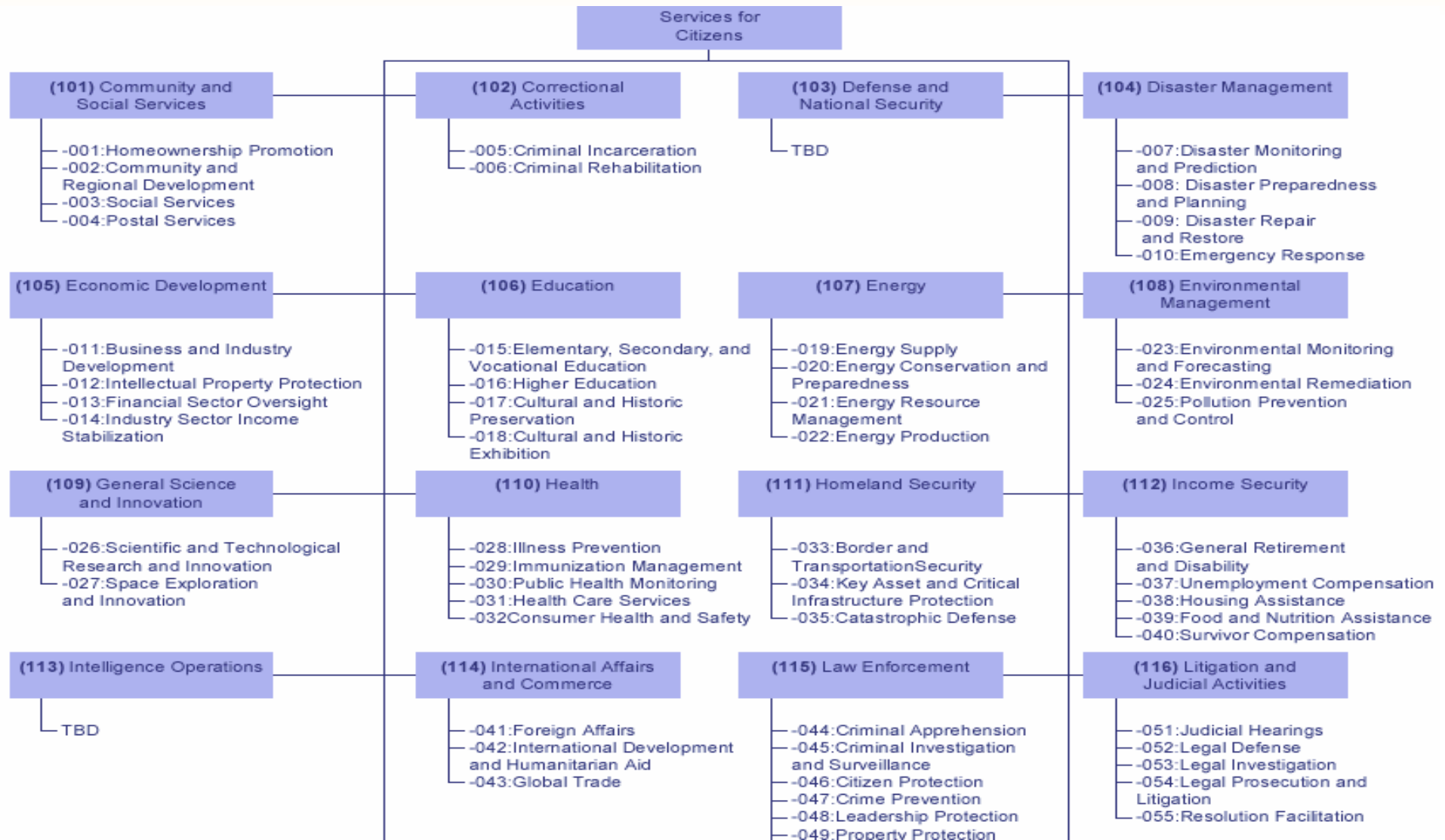
Sub-Function*

***Values for these numbers can be found at FEAPMO.gov and in "Additional Guidance on FEA-Related Requirements in OMB Circular A-11"**

- If you can NOT identify a single LOB or Sub-Function for your initiative (this is not common), you may enter 99 (for the LOB/Internal Function) and/or 999 (for the Sub-Function)



Service to the Citizen Functions



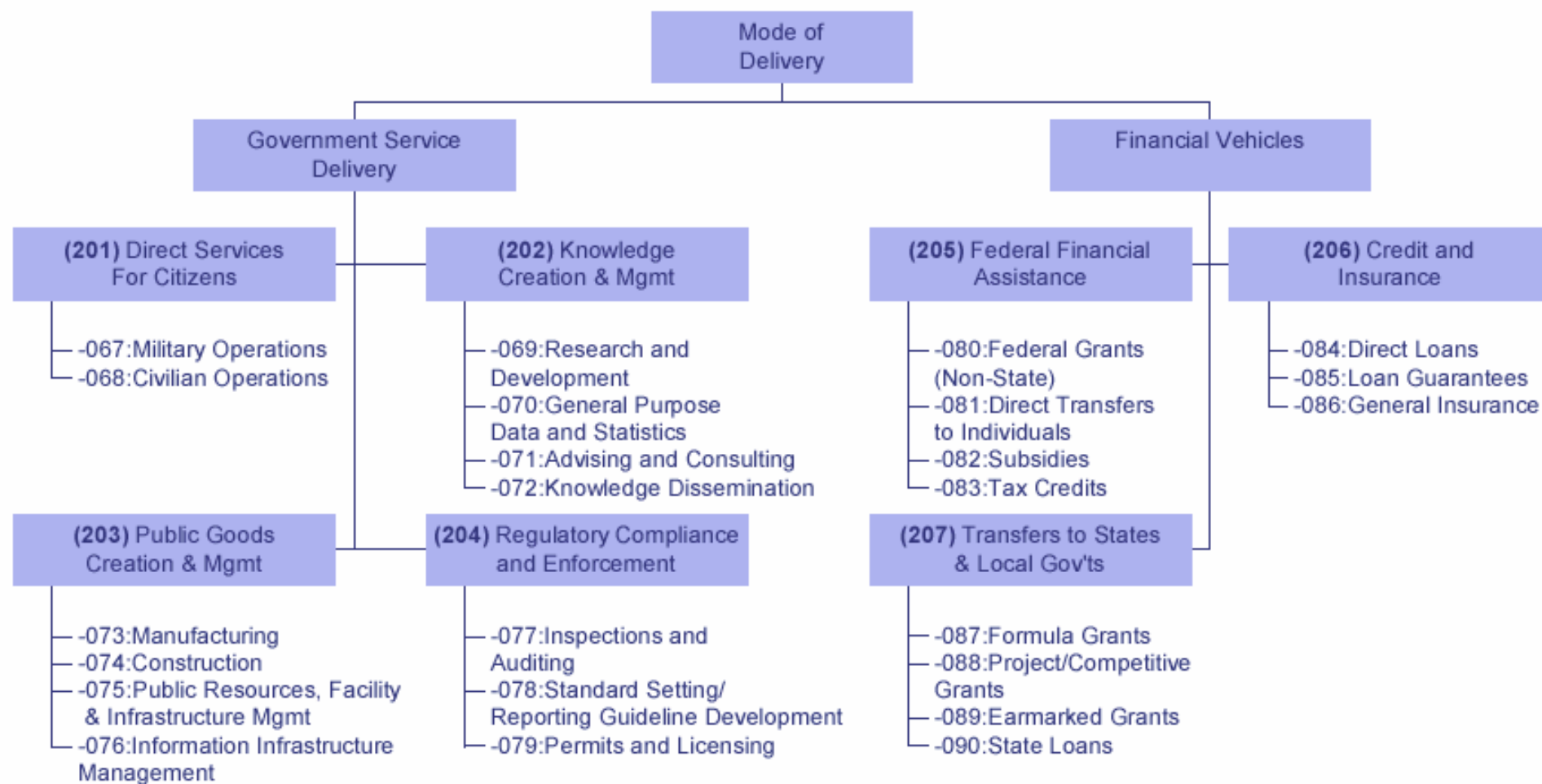
Education



- **EDUCATION** – Education refers to those activities that impart knowledge or understanding of a particular subject to the public. Education can take place at a formal school, college, university or other training program. This Line of Business includes all government programs that promote the education of the public, including both earned and unearned benefit programs.
- **Elementary, Secondary, and Vocational Education-** Elementary, secondary, and vocational education refers to the provision of education in elementary subjects (reading and writing and arithmetic) provided to young students at a grade school; education provided by a high school or college preparatory school; and vocational and technical education and training.
- **Higher Education-** Higher Education refers to education beyond the secondary level; specifically, education provided by a college or university.
- **Cultural and Historic Preservation** - Cultural and Historic Preservation involves all activities performed by the Federal Government to collect and preserve information and artifacts important to the culture and history of the United States and its citizenry and the education of U.S. citizens and the world.
- **Cultural and Historic Exhibition** - Cultural and Historic Exhibition includes all activities under-taken by the U.S. government to promote education through the exhibition of cultural, historical, and other information, archives, art, etc.



Mode of Delivery Functions



Financial Vehicles

- **FINANCIAL VEHICLES** – Financial Vehicles involve those monetary exchanges or transactions between Federal Government entities as well as between the Federal Government and non-Federal entities as a means to accomplishing a Federal goal or objective.
- **FEDERAL FINANCIAL ASSISTANCE** – The provision of earned and unearned financial or monetary-like benefits to individuals, groups, or corporations
- **Federal Grants (Non-State)** - Federal Grants involve the disbursement of funds by the Federal Government to a non-Federal entity to help fund projects or activities. This includes the processes associated with grant administration, including the publication of funds availability notices, development of the grant application guidance, determination of grantee eligibility, coordination of the peer review/evaluation process for competitive grants, the transfer of funds, and the monitoring/oversight as appropriate.
- **Direct Transfers to Individuals**- Direct Transfers to Individuals involves the disbursement of funds from the Federal Government directly to beneficiaries (individuals or organizations) who satisfy Federal eligibility requirements with no restrictions imposed on the recipient as to how the money is spent. Direct Transfers include both earned and unearned Federal Entitlement programs such as Medicare, Social Security, unemployment benefits, etc.
- **Subsidies**- Subsidies involve Federal Government financial transfers that reduce costs and/or increase revenues of producers.
- **Tax Credits** -Tax Credits allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability designed to encourage certain kinds of activities or to aid taxpayers in special circumstances.

Credit and Insurance

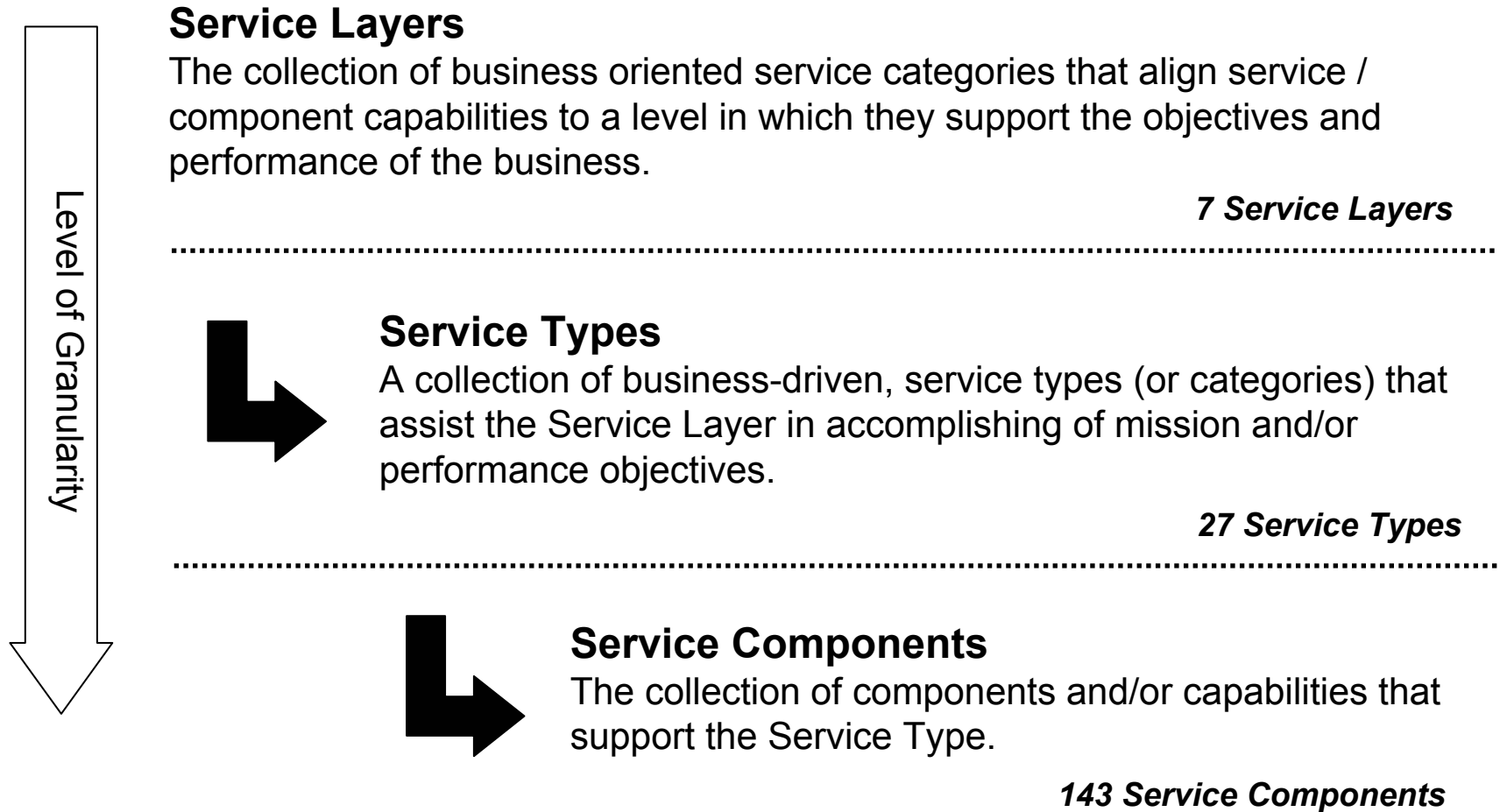


- **CREDIT AND INSURANCE** – Credit and Insurance involves the use of government funds to cover the subsidy cost of a direct loan or loan guarantee or to protect/indemnify members of the public from financial losses.
- **General Insurance** – General Insurance involves providing protection to individuals or entities against specified risks. The specified protection generally involves risks that private sector entities are unable or unwilling to assume or subsidize and where the provision of insurance is necessary to achieve social objectives.
- **Loan Guarantees**- Loan guarantees involve any guarantee, insurance, or other pledge with respect to the payment of all or a part of the principal or interest on any debt obligation of a non-Federal borrower to a non-Federal lender, but does not include the insurance of deposits, shares, or other withdrawable accounts in financial institutions.
- **Direct Loans** - Direct loans involve a disbursement of funds by the Government to a non-Federal borrower under a contract that requires the repayment of such funds with or without interest.

Service Reference Model (SRM) – Version 1.0 (January 2003)



The SRM framework is comprised of three (3) inter-related “service-oriented” tiers – each of which describes capabilities in greater levels of granularity



Service Reference Model Layers

- Support Services (Common Services)
- Customer Services
- Process Automation Services
- Business Management Services
- Digital Asset Services
- Business Analytical Services
- Back Office Services

Support Services (Common Services)

Defines the set of cross-functional capabilities that can be leveraged independent of service layer objective and / or mission.

Security Management

- Identification
- Access Control
- Encryption
- Intrusion Detection
- Verification
- Digital Signature
- User Management
- Role / Privilege Management

Collaboration

- Email
- Threaded Discussions
- Document Library
- Shared Calendaring
- Task Management

Search

- Keyword
- Context
- Free Text
- Parametric

Communication

- Real-Time / Chat
- Instant Messaging
- Audio Conferencing
- Video Conferencing
- Event / News Management
- Community Management

Customer Services

Defines the set of capabilities that are directly related to the end customer, the business' interaction with the customer, and the customer driven activities or functions.

Customer Relationship Management (CRM)

- Call Center Management
- Customer Analytics
- Sales and Marketing
- Product / Brand Management
- Customer / Account Management
- Contact Management
- Partner Relationship Management
- Customer Feedback
- Surveys

Customer Preferences

- Personalization
- Subscriptions
- Alerts and Notifications
- Profile Management

Customer Initiated Assistance

- Online Help
- Online Tutorials
- Self-Service
- Reservations / Registration
- Multi-Lingual Support
- Assistance Request

Process Automation Services

Defines the set of capabilities that support the automation of process and management activities that assist in effectively managing the business.

Tracking and Workflow

- Process Tracking
- Problem / Issue Tracking
- Performance Tracking
- Case Management

Routing and Scheduling

- Correspondence Management
- Business Rule Management

Business Management Services

Defines the set of capabilities that support the management of business functions and organizational activities that maintain continuity across the business and value-chain participants.

Management of Process

- Change Management
- Configuration Management
- Requirements Management
- Program / Project Management
- Governance / Policy Management
- Quality Management

Organizational Management

- Network Management
- Workgroup, Groupware

Investment Management

- Strategic Planning & Management
- Portfolio Management
- Performance Management

Supply Chain Management (SCM)

- Manufacturing and Production
- Inventory Management
- Purchasing
- Sales and Distribution
- Scheduling and Delivery
- Logistics Management

Procurement

- Sourcing Management
- Catalog Management
- Ordering / Purchasing
- Order Tracking
- Storefront / Shopping Cart

Digital Asset Services

Defines the set of capabilities that support the generation, management, and distribution of intellectual capital and electronic media across the business and extended enterprise.

Content Management

- Content Authoring
- Content Review and Approval
- Tagging and Aggregation
- Content Publishing and Delivery
- Syndication Management

Document Management

- Document Imaging
- Document Referencing
- Document Revisions
- Library / Storage
- Document Review and Approval
- Document Conversion
- Indexing

Knowledge Management

- Information Retrieval
- Information Mapping / Taxonomy
- Information Sharing
- Categorization
- Knowledge Engineering
- Knowledge Capture
- Knowledge Discovery

Business Analytical Services

Defines the set of capabilities supporting the extraction, aggregation, and presentation of information to facilitate decision analysis and business evaluation.

Analysis and Statistics

- Modeling
- Predictive
- Simulation
- Mathematical
- Structural, Thermal

Visualization

- Graphing, Charting
- Imagery
- Multimedia
- Mapping / Geospatial
- CAD

Business Intelligence

- Risk Management
- Demand Forecasting / Management
- Balanced Scorecard
- Decision Support and Planning
- Data Mining

Reporting

- Ad-Hoc
- Standardized / Canned
- OLAP

Back Office Services

Defines the set of capabilities that support the management of enterprise planning and transactional-based functions

Data Management

- Data Exchange
- Data Mart
- Data Warehouse
- Meta Data Management
- Data Cleansing
- Extraction and Transformation
- Loading and Archiving
- Records Management
 - Authenticity - Integrity
 - Reliability - Disposition

Human Resources

- Recruiting
- Resume Management
- Career Development
- Time Reporting
- Benefit Management
- Retirement Management
- Personal Administration
- Education / Training

Financial Management

- Billing and Accounting
- Credit / Charge
- Expense Management
- Payroll
- Payment / Settlement
- Debt Collection
- Auditing
- Activity-Based Management
- Currency Translation

Assets / Materials Management

- Asset Cataloging / Identification
- Asset Transfer and Allocation
- Facilities Management

Integration

- Legacy Integration
- Enterprise Application Integration
- Data Integration

Human Capital / Workforce Management

- Resource Planning and Allocation
- Skills Management
- Workforce Directory / Locator
- Team / Org Management
- Contingent Workforce Management
- Workforce Acquisition / Optimization

Technical Reference Model (TRM) – Version 1.0 (January 2003)

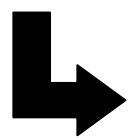


The TRM is comprised of three (3) technical tiers to support the construction, exchange, and delivery of component-driven, Service Components

FEA TRM Technical Tiers:

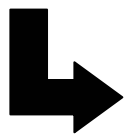
Service Access and Delivery

The collection of Access and Delivery Channels that will be used to leverage the Service Component, and the Legislative Requirements that govern it's use and interaction



Service Framework

The underlying foundation and technical elements by which Service Components are built, integrated and deployed across Component-Based and Distributed Architectures.



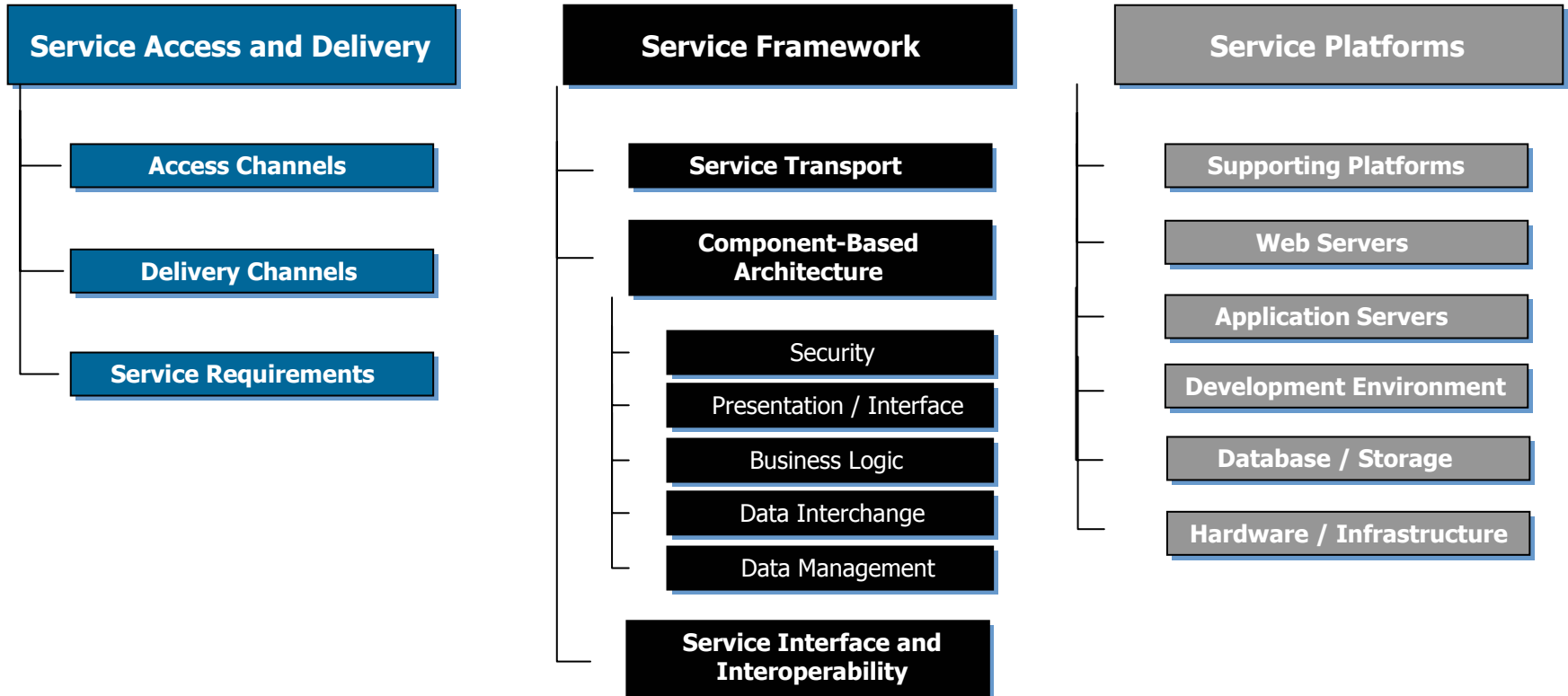
Service Platform

A collection of platforms and specifications that embrace Component-Based Architectures and Service Component reuse



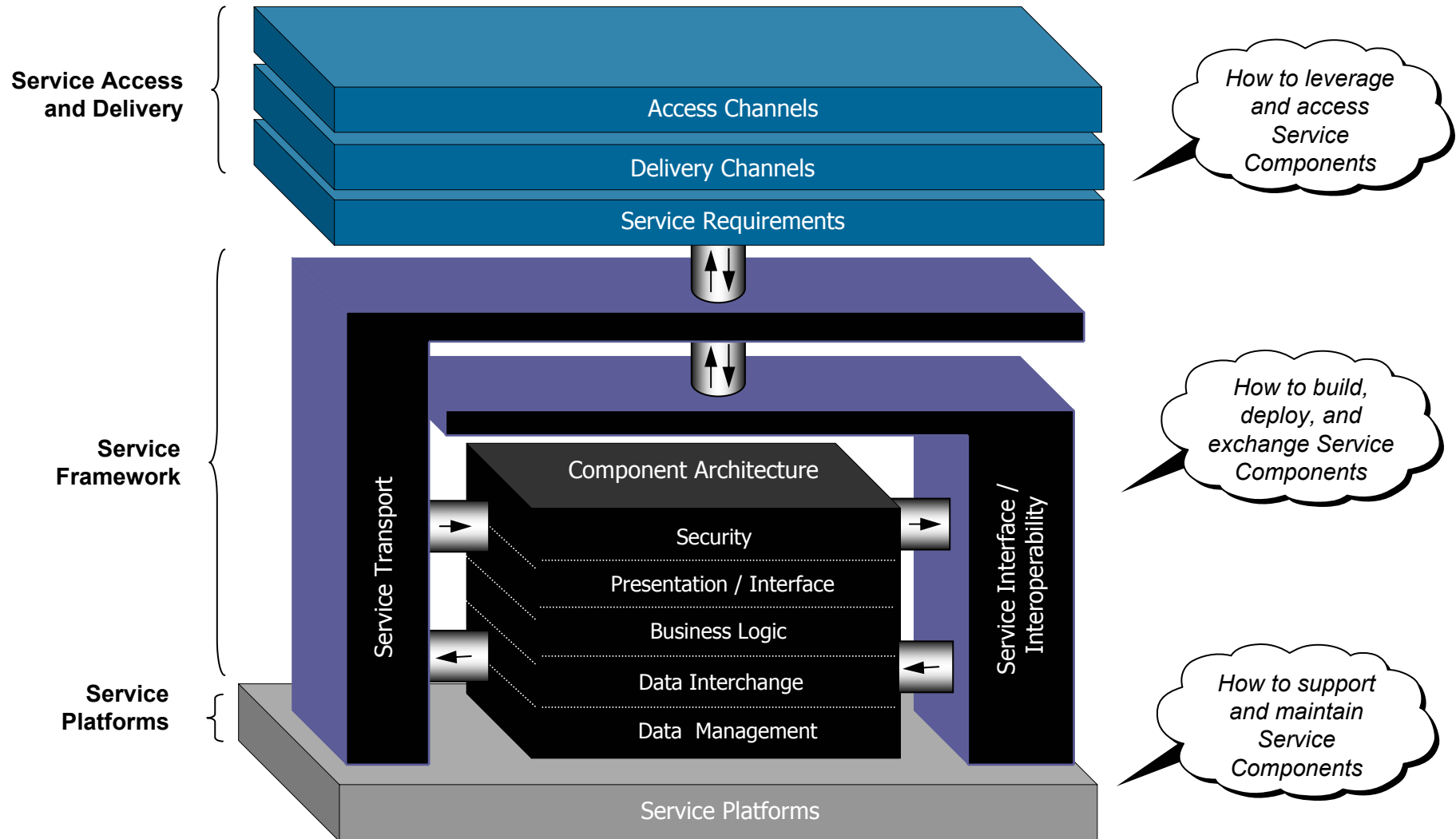
Each tier is comprised of multiple categories that describe the technologies, standards, and specifications that support the service component

FEA Technical Reference Model (TRM) - Snapshot

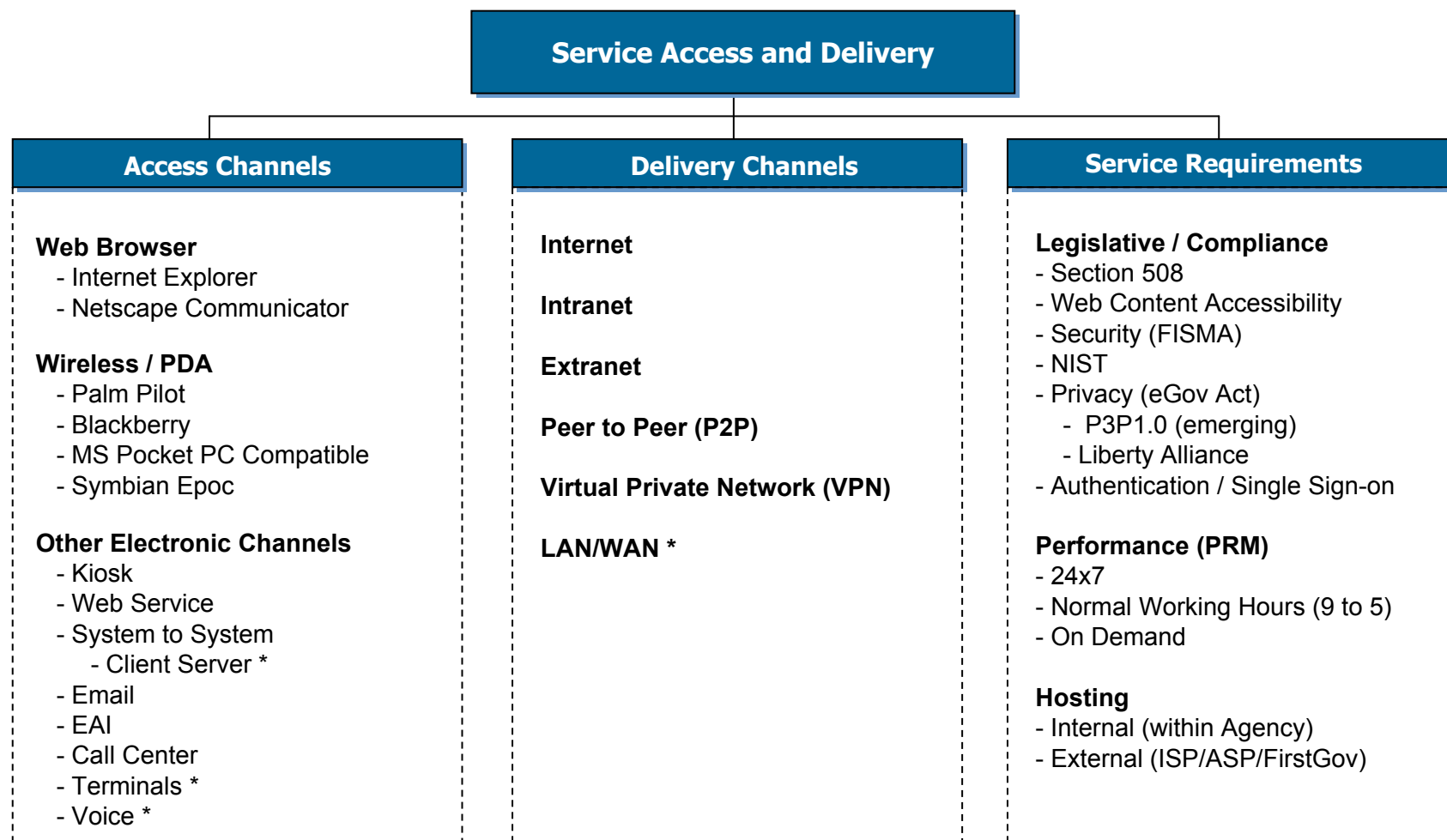


Collectively, the TRM technical tiers provide a robust and effective foundation to support the reuse and delivery of service components

FEA – Technical Reference Model

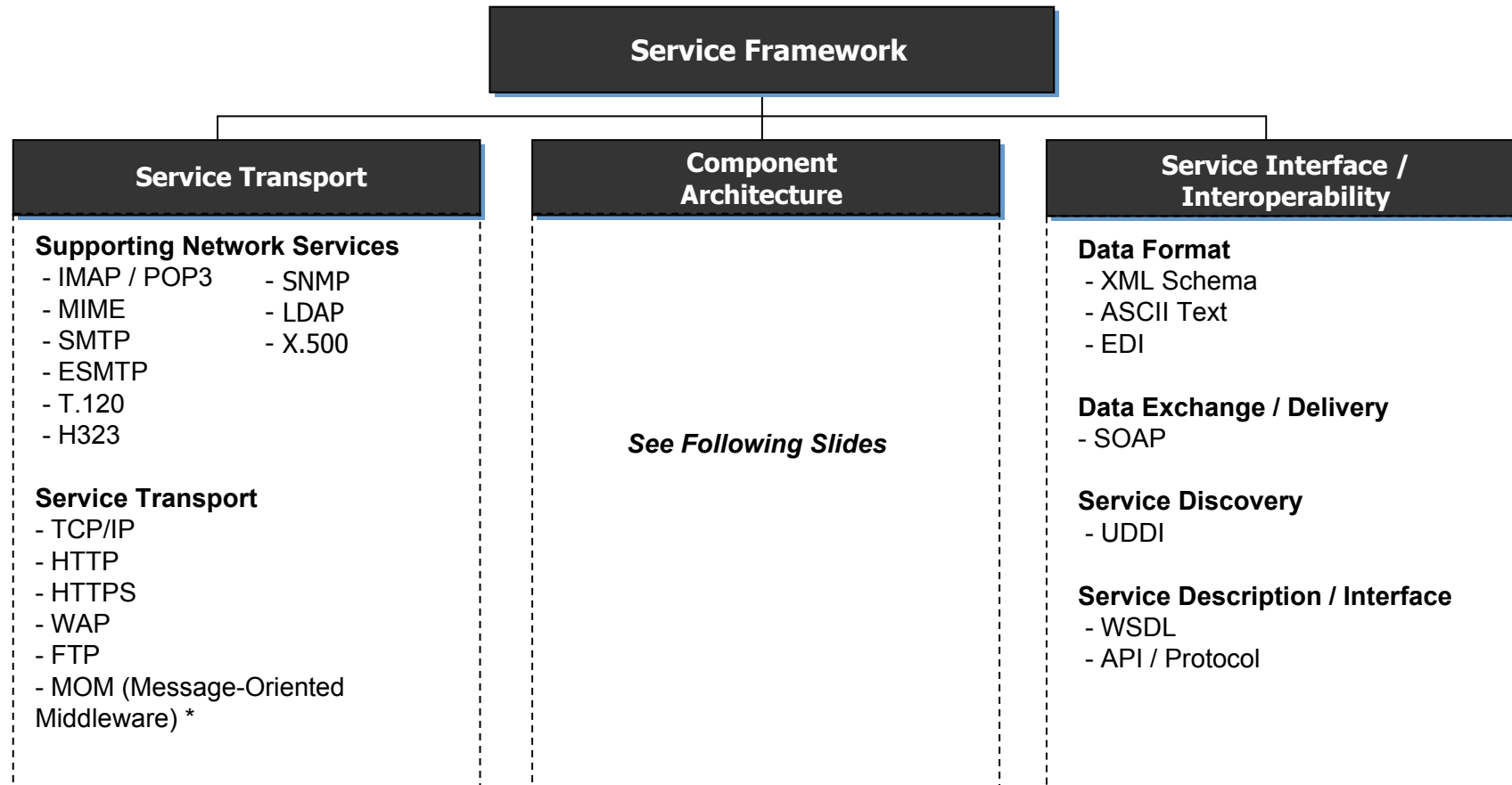


TRM – Service Access and Delivery



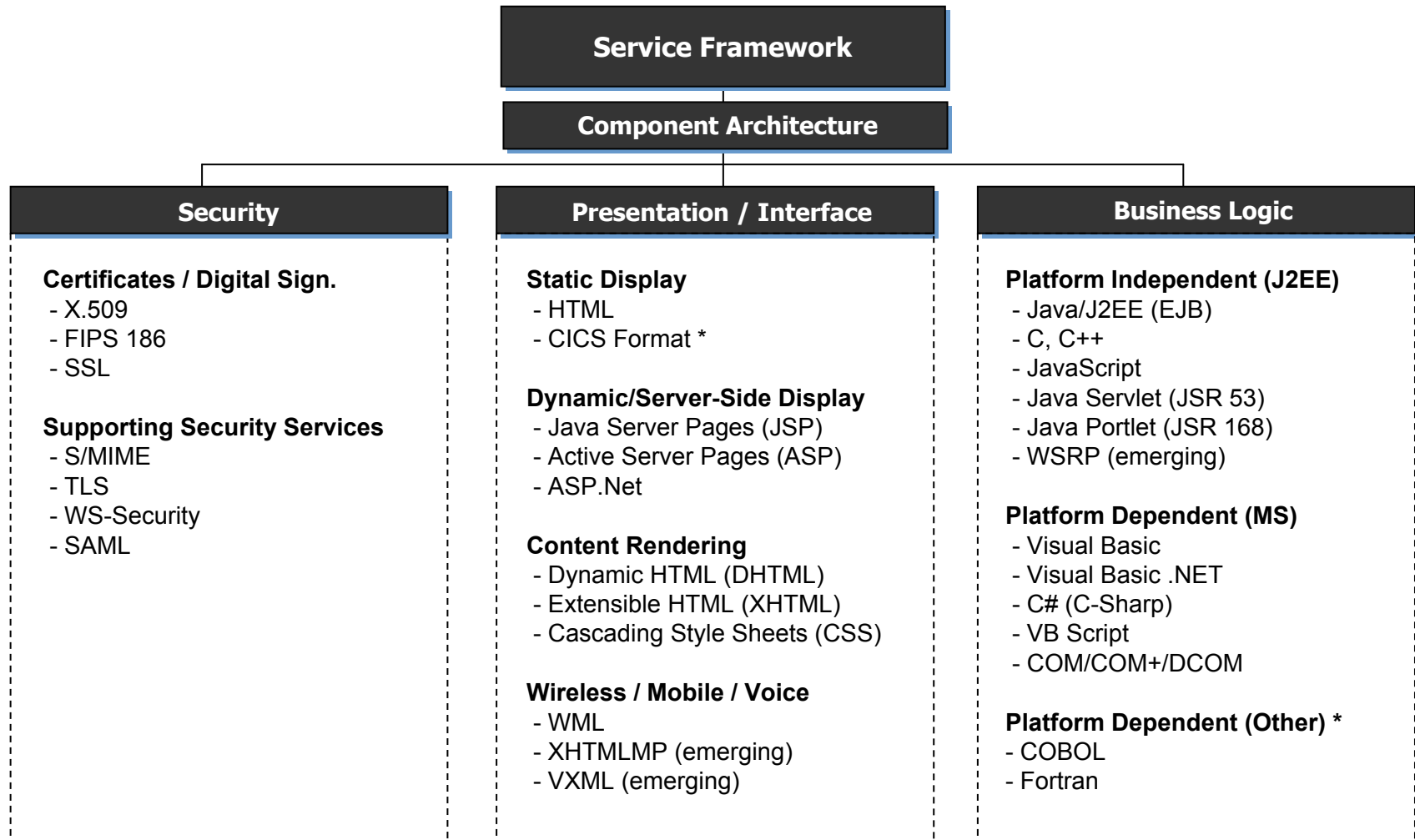
* FSA Addendum to OMB

TRM – Service Framework



* FSA Addendum to OMB

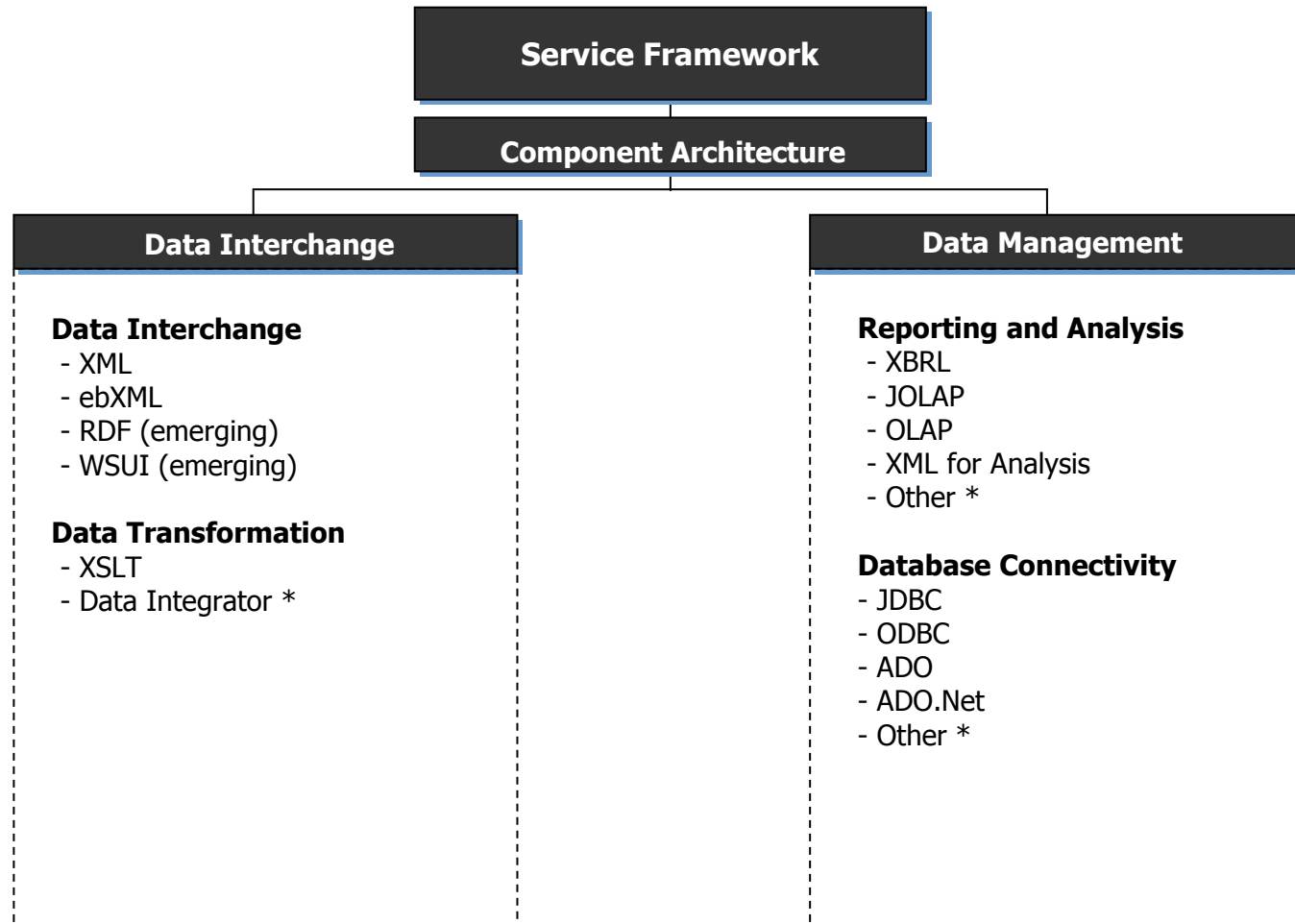
TRM – Service Framework / Component Architecture



* FSA Addendum to OMB

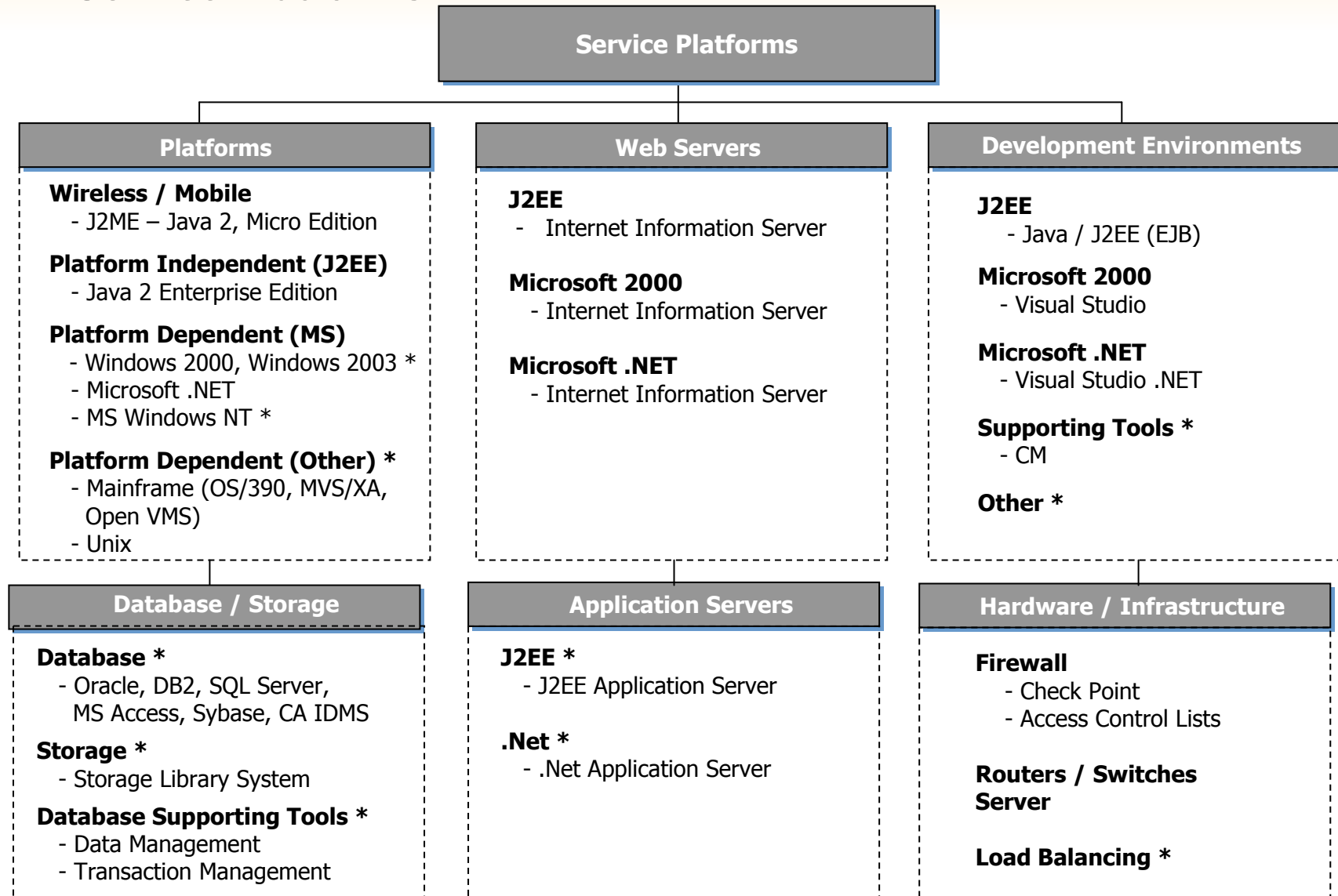


TRM – Service Framework / Component Architecture (cont'd)



* FSA Addendum to OMB

TRM – Service Platforms



* FSA Addendum to OMB

Distribution of Material

- The folders being distributed contain the data collected to-date on the reference models for each individual application or program / initiative.

Next Steps



- **July 17:** Sign up for a Validation Session with the Enterprise Architecture (EA) Team
- **July 18 – July 24:** Review and Validation / Update, as necessary
- **July 25:** Deliver Version 1.0 (BRM, PRM, TRM, SRM)
- **July 28 – Aug 1:** EA Team receives Sign-off by the appropriate Business Owner
 - Meets a Department of Education's OMB Exhibit 300 deadline
- **Aug / Sep:** Populate the Popkin Repository
 - Based on sign-off and final Version 1.0

Questions & Answers



- We are pleased to take your questions....